

Meeting Description: Michigan Geographic Framework Users Meeting

Date: January 11, 2001

Time: 10:00 a.m.

Location: Romney Building, 10th Floor, Michigan Information Center Conference Room

I. Approval of December Meeting Minutes

II. Geographic Framework Program

A. Phase 2 Status

Rob Surber, Michigan Information Center (MIC), reported that there are 20 physical referencing numbers (PRs) remaining in Wayne County, mostly around complicated interchanges. There is a tangled mess in Michigan Accident Location Inventory (MALI) in certain areas. MIC is working hard to get this done. MIC is waiting for Macomb County data from Michigan Department of Transportation (MDOT).

Joyce Newell, MDOT, responded that they are almost finished with checks and it then must go through National Functional Classification (NFC) checks.

B. Polygon Build / Act 51 / Seaming Update

Rob Surber, MIC, stated that Livingston County has had the polygons updated and is now in the seaming process. As soon as MIC receives Macomb County, they will begin working on it and then would be able to finish seaming St. Clair County. Seaming will be completed for Barry County in a day or so and Calhoun County mid next week. MIC is moving forward for SEMCOG area for seaming.

Ann VanSlembrouck, SEMCOG, asked if the work for Oakland County is ahead of Wayne County.

Rob Surber, MIC, stated that Oakland County has reached identity point and MIC is now checking road names – expect the county to be complete in a couple of weeks. There are a couple minor civil division (MCD) boundary problems in Oakland County, then will do the final checks. MIC will continue to work 2 shifts on Wayne County.

C. Repositioning Update

Rob Surber, MIC, reported that repositioning represents a complete statewide improvement. This month MIC expects to get information from vendor about the statewide rail network. MIC will start versioning, which will be used to keep track of change. Brought examples of shoreline and water issues that MIC will need guidance from Michigan Department of Environmental Quality (MDEQ). MIC reviewed shoreline issues while doing repositioning so they may get clarification early. These will be used for training manuals and user manuals. MDEQ will provide guidance regarding definitions. Michigan Department of Natural Resources (MDNR) may assist with guidance on 2-track road issues. MIC's goal is to lock in standards early to make this an efficient process. MIC is developing procedures and will make them available. If any agency is interested in issues that might not be picked up in standard procedures, please advise Rob. MIC is meeting regularly to discuss new issues. As they reposition features, they want to maintain consistent topology along county line. MIC is dealing with non-visual county lines and their features. This presents a challenge to maintain integrity of the county line boundaries where they don't actually follow the road. MIC is developing procedures that will be made available and will distribute them. Anything less than 5 meters will be brought to the road centerline because the model represents the middle of the road. The centerline model can only go so far with its representation, until more specifics with 2 dimensionals. MIC is looking at those issues and would be interested in feedback.

Bernie Skipper, Natural Resources Conservation Service (NRCS), stated that when recertifying soil data, they would be interested in county boundary coverage at 1:12,000.

Rob Surber, MIC, agreed that it is needed. MIC understands that MDNR is reloading remonumented points.

Gary Bilow, MDNR, responded that there are approximately 20,000 remonumented section corners and 500-600 with global position system (GPS) on them.

Rob Surber, MIC, commented that MIC is interested in finding those. Unfortunately, there is a lot of data that is not available. MIC will work with best information available – digital raster graphics (DRGs), original Michigan Resource Information System (MIRIS) base and improve it and provide Metadata. This will be tedious work. Have not needed to correct many intersections, which is positive.

D. Digital Ortho Update

Rob Surber, MIC, reported that MIC has done work with MDNR. Brett Nelson, who works at MIC and MDNR, has been doing research between the offices.

Everett Root, MIC, stated that MIC took the quarter quad shape file and attributed it to show which photos MIC has and which MDNR has in an effort to coordinate inventories. Will continue to check the United States Geological Survey (USGS) website to find out what photos are available that we don't have yet. Some areas had duplicate coverage because there were older black and white and newer color infrared. The oldest is 1992-94 in black and white. Color infrared is 1998 for Ottawa County and along the shoreline.

Bill Enslin, MIC, inquired about the situation on the digital ortho quad (DOQ) acquisition for islands.

Gary Bilow, MDNR, responded that some of the islands would be done as part of the major island groups – Fox Island, Beaver Island. There is an extra cost for the islands.

Rob Surber, MIC, stated that MIC is interested in using the Allegan County shoreline work.

Jeroen Wagendorp, Allegan County, commented that since the data is being paid by the U.S. Army Corp of Engineers, should inform them that it is being given away. Jeroen will contact the Corp and see if they have objections. It would be interesting to see what Grand Valley State University is doing.

E. Imagery Program

Eric Swanson, MIC, reported that the Imagery Program comes from involvement with imagery acquisition, dissemination, etc. Several people went to National Aeronautics and Space Administration (NASA) and they are interested in getting involved with states' and local governments' data and expertise. There are other types of imagery available (digital ortho's, satellite, conventional aerial photography) that involve a tremendous investment. A group of agencies ((SEMCOG, Allegan County, Wayne County, Michigan State Police (MSP), Michigan State University (MSU), MDNR, MDEQ, MDOT, MIC)) are meeting February 1. Want to keep the group manageable and selected those that are actively involved – there are no cities or federal agencies involved at this time. The purpose is to brainstorm about who is doing what, how to improve, how to coordinate, whether state and/or federal funding could be secured for acquisition of imagery on a regular basis - then what are use issues, dissemination, and storage issues. MIC looked at a server at a quarter million dollar investment to hold one set of ortho's. There is a unique opportunity to apply for a 3-year grant through NASA and that would help start this program. Wants to eliminate duplication of efforts. Other state agencies and locals interested in cost share with the state.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Gary Bilow, MDNR, reported they are investigating Meets and Bounds legal descriptions created into polygons. They have scanned documents, text files, and real estate information system (REIS) with legal descriptions to gather a broad sample of input for the vendors to review. It would be character recognition and scanning technology that reads direction and distance and converts that into vector and puts into an Autocad environment. It is not an automated process. If there is a series of consistent documents it might work well in a batch environment, but MDNR's data is not consistent.

John Clark, Michigan Department of Environmental Quality (MDEQ), asked if this is to catch up historical data or to do on-going input.

Gary Bilow, MDNR, responded that it is both.

John Clark, MDEQ, asked if this is something that a surveyor could provide data in a ready-to-use format

Gary Bilow, MDNR, responded that MDNR's surveyors could, but not from a public standpoint. If MDNR is ready to buy a parcel of land, they will get a legal description and then have it massaged by MDNR appraisers or property analysts.

John Clark, MDEQ, stated that MDEQ has a conservation easement that they track. The data is provided by a third party, who paces it off. They have wondered if they could make it automated.

Jeroen Wagendorp, Allegan County, asked if MDNR had selected a software vendor yet.

Gary Bilow, MDNR, responded that they are still looking. Hope to make a decision within the next couple of months.

Jeroen Wagendorp, Allegan County, commented that if they are successful. Please let Jeroen know when they choose one. All 83 counties may be interested.

Rob Surber, MIC, commented that he understood that they are working on cleaning up a database of subdivisions from CIS.

Gary Bilow, MDNR, responded that as part of the rewrite of MDNR's real estate information system (REIS) they are trying to get to subdivision. They have lots and acreage parcels now. The lots are all parks and subdivisions. They have reference numbers for subdivisions. There is a lot of duplication in that database and they are cleaning it up. Trying to match the REIS database to the CIS, the state's keeper of subdivisions, database. Found out that the CIS has problems as well. MDNR now has about 100 users. There is a link on the server to subdivisions images and the subdivision database. Staff is bringing up the image of subdivision and correcting the database entry based on information on the subdivision plat.

Rob Surber, MIC, commented that there is a date that they are submitted. MIC is interested as they enter they enter the maintenance phase, they could query by most recent date for new subdivisions. It would help in updating the framework.

Gary Bilow, MDNR, added that the database is about 70,000 records and they have completed 13,000. CIS did all of the scanning. It was assumed that the CIS database was the most complete record, but MDNR has reference to some subdivisions that CIS does not have. The microfiche is very legible.

Rob Surber, MIC, asked as MDNR is updating the database, are they working by date or by geography - how are they ordering their work.

Gary Bilow, MDNR, responded that it has changed a couple of times. They had a need to get 51 counties done because of the tax reversion law. Before that they were assigning subdivision numerically, which was a date. But the geographic method works better because also get them

by date, because numbers increment. Some of the recording certificates are stamps on a vinyl or paper copy and are difficult to read.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that she did a map 2-3 months and took a digital elevation module (DEM) from MIC web site and added roads. Management commented that could probably locate culverts with the map. A GPS team went into the field to see if they could locate the culverts and they were successful. Now they are exploring ways to put together a program to find culverts.

Jeroen Wagendorp, Allegan County, asked what the percentage of accuracy they are finding.

Joyce Newell, MDOT, responded that she didn't know if it is positionally accurate, but at least they can see where a culvert should be.

Everett Root, MIC, commented that Grand Valley State University collected GPS'd points and had digitally photographed Ionia County bridges and culverts.

Jeroen Wagendorp, Allegan County, added that might be totally unrelated to existing streams and rivers. Perhaps there are ditches that the drain commissioner does not know about.

Eric Swanson, MIC, asked if this is all related to MDOT being assessed for all of the roads within counties.

Joyce Newell, MDOT, responded that it is. Will have more information in the future as to the direction MDOT is going with this. Still working on Highway Pavement Management System (HPMS) segmentation to relate to framework and expect it soon.

Alden Leatherman, MIC, responded that it is coming today.

Joyce Newell, MDOT, commented that checked how scanned images of as-built plans relate to framework. Expect to have product soon. They will start locating projects job numbers from map database to framework database. That work will be done by Michigan State Industries (MSI).

Eric Swanson, MIC, added that MIC has been working with John Wesa, MDOT, to get control section atlas and physical reference (PR) atlas. Basically, it is a county map book. John Clark, MDEQ, wrote automated labeling programs. There is an April 15 deadline to have electronically ready for the printer and a May 15 deadline to have completed.

Joyce Newell, MDOT, commented that maps are being returned from counties with corrections. Many of the corrections affect Act 51 certification. Need to discuss how to reflect data in framework.

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

John Clark, MDEQ, reported that he finished the label extension and is now tweaking it to make it self-contained. They have finished the light detection and ranging system (LIDARS) work in the Macatawa Water Shed, if interested in work, CDs can be provided.

Jeroen Wagendorp, Allegan County, commented that if the LIDARS results are promising, they might mushroom.

John Clark, MDEQ, commented that they need a better definition of water. When they processed the data they had to redefine boundaries of riverbanks. Laser cannot interpret through water. MDEQ will do ground proofing next. MDEQ was considering using topographic maps elevations for quality control. May have to indicate that it is the best available technique.

Jeroen Wagendorp, Allegan County, asked if the LIDARS approach is more cost effective than digital ortho's.

John Clark, MDEQ, commented that they would have to survey not only x and y but vertical coordinates. There is a good correlation with existing work.

VI. Michigan State Police (MSP) Project and Activities

Nobody in attendance.

VII. Michigan State Industries (MSI) Projects and Activities

Carol Woodman, MSI, reported that they had a turn over of staff. Three stayed on and will begin training new staff 6 weeks. New staff is doing well. MSI is waiting for Wayne and Oakland Counties to begin work on them.

VIII. MIC Projects and Activities

A. Land Use / Cover Map

Rob Surber, Michigan Information Center, brought a Land Use / Land Cover map produced by MIC. The data is 30 meter released last fall from United States Geological Survey (USGS). It was created from approximately 1992 Thematic Mapper leaf-off acquisitions, Census Bureau data and from the National Wetlands Inventory. The challenge is producing it on the plotter. They got a C-size to print and almost got an E-size to print. The file size is 300 dot per inch (dpi). It is difficult to take text and put as separate vector layer. The file is 500-700 megabytes. It is not great for large-scale mapping downloaded to test plotter.

Eric Swanson, MIC, stated that the MIC did an E-size map for the former chief justice, and are also printing one for Mary Lannoye, Michigan Department of Management and Budget, Budget Director. These almost have commercial value.

Jeroen Wagendorp, Allegan County, commented that they used Illustrator and Photoshop to print over a gigabyte and the trick was to increase the size of the temp file.

Rob Surber, MIC, stated that MIC is able to get $\frac{3}{4}$ done and that is it.

John Clark, MDEQ, added that it could be downloaded from the spatial data library.

Gary Bilow, MDNR, commented that it is not in finished form, but the data is there.

B. GIS Portal

Eric Swanson, MIC, reported that a staff person is beginning to research product availability at the state agency level. Would like to create a portal (point of contact) to access data and find a way to get in and search by key words to find what is there. Part of clearinghouse effort was an attempt to accommodate it, but the project is floundering. MIC will take a pro-active approach by establishing a portal.

John Clark, MDEQ, commented that a user could download GIS data and could query the spatial data library. Using web technology, agencies have their own log-in and modify data. Everybody could have access to view the data.

Eric Swanson, MIC, added that Dan Metzger, MIC, is doing the research. This will tie into E-Michigan.

John Clark, MIC, asked if the Internet map would be affected.

Eric Swanson, MIC, responded that it could.

Jeroen Wagendorp, Allegan County, commented that if this is interact with the public it must be able to go to lowest common denominator.

Eric Swanson, MIC, responded that it could have different levels. The general user could query and get results.

Rob Surber, MIC, added that this is the clearinghouse concept, but in a more user friendly form.

Bill Enslin, MSU, asked if the MIC has evaluated the ESRI geography network.

Rob Surber, MIC, responded that MIC has.

IX. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they are reconciling the transportation model network with framework. The deadline is February 16. The next Regional GIS meeting is scheduled for March 15. The meeting location will be at MDOT Intelligent Transportation System Center – they are in charge of signs and cameras on the freeway.

Jeroen Wagendorp, Allegan County, reported that they are working with Michigan State Police, to obtain Emergency Management Division, for Federal Emergency Management Agency (FEMA) dollars for flood mapping. Currently there are no FEMA maps for Allegan County.

John Clark, MDEQ, suggested using hydric soil maps as default. John used these for Eaton County and it fit pretty well. Land and Water Management Division is partnering with FEMA in flood plane map – to develop map and sent to FEMA and be responsible to maintain. May use hydric soils where there is not a first map available. John suggested that Jeoren talk to George Hosek at MDEQ who is an authority on FEMA.

Jeroen Wagendorp, Allegan County, stated that they did 52,000 parcels and can reposition and fine tune. They were promised ortho's in November and now they are due in February.

X. MSU Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, reported that at the last meeting he mentioned that they completed the DRG index file as an ArcView shape file. The attribute file includes the data of the 7.5 minute quad that was used as a source for the MDNR MIRIS file. The also contains the contour intervals. This is may be found on the MSU ftp site - <ftp.crs.msu.edu> in the PUB directory.

XI. County / Local Projects and Activities

Nothing to report.

XII. Federal Projects and Activities

Joe Kogelman, U.S. Bureau of the Census, reported that Office of Management and Budget received complaints from states that there is not a federal spatial data library. A team has been developed and the Bureau is now gathering information about what is happening in the states. Want to take TIGER and move it to an 'ArcView-type' software. The Bureau has scaled back staff since census was taken. They are printing maps for state legislatures. The Bureau wants to move TIGER so it is positionally correct. They are concerned about discrepancies. They want to go to GPS for the next census.

Rob Surber, MIC, stated that MIC has several thousand fairly good address range corrections because of Qualified Voter Files (QVF). The original data came from TIGER. This file is looked at closely by the clerks because of voters' addresses at city and township lines. This is an additional complete set of source data that has been signed off on by all jurisdictions affected.

Eric Swanson, MIC, commented that this model in Michigan is working well. There are seven state agencies that combine funding for framework development with no direct federal money.

Joe Kogelman, U.S. Bureau of the Census, commented that the Bureau is considering partnerships but only interested in partnerships that do not involve money. The Bureau is opposed to contracting.

Eric Swanson, MIC, commented that this would not be called contracting but pooling contributions.

Rob Surber, MIC, added that this needs to be something doable and within everybody's attention span.

Joe Kogelman, U.S. Bureau of the Census, commented that this is a new concept but the Bureau has needed to do it for a long time. TIGER, voting districts, census tracts, local jurisdictions are expanded - does not have zip code tabulated areas in latest version, which was refined. Two sets of maps will be sent to Michigan – each legislative party and the State Data Center (SDC). The Bureau has not received a 'mail to' addresses yet.

Eric Swanson, MIC, stated that he convinced legislature to send one copy to MIC and we will print on demand.

Rob Surber, MIC, commented that MIC has been planning to populate the Michigan geographic framework with census geographic codes at least to block group level. If there is a need for blocks statewide, contact Rob. MIC will handle tracts and block groups. It is a matter of priorities.

Joyce Newell, MDOT, asked when population numbers for urban areas would be released.

Joe Kogelman, U.S. Bureau of the Census, responded that public law (P.L.) data would be available no later than March 31 and would be posted on the Internet.

Eric Swanson, MIC, commented that Michigan is in the fourth tier and would be pushing the end of March. MIC has three staffers gearing up to respond to requests.

Joe Kogelman, U.S. Bureau of the Census, added that other data would be released after April 1 until June 1. If a housing unit and population were incorrectly assigned to a block, then the Census Bureau would search address file and may do a block reassignment. But would never add a new housing unit or new population.

Jeroen Wagendorp, Allegan County, commented the estimates indicate that Allegan County went to over 100,000 and now the Wetland Protection Act will take effect. Planning units would want the information when it is available.

Eric Swanson, MIC, added that April 1 is the official date for P.L. 94-171. Estimated growth is based on 1999 census data.

Joe Kogelman, U.S. Bureau of the Census, stated that by April 1 this data should be available.

Alden Leatherman, MIC, asked if the official data would be based on adjusted or unadjusted population counts.

Joe Kogelman, U.S. Bureau of the Census, stated that the Bureau could state which is the official numbers to be used. The Secretary of Commerce could revoke whether adjusted or unadjusted counts are used as official.

Bernie Skipper, Natural Resources Conservation Service (NRCS), distributed an updated Status of Digital Soils map of Michigan. Emmet, Gladwin, and Bay Counties have been completed. There is a problem with the DOQs in Wexford County.

Everett Root, MIC, spoke with Mark Coppersmith, U.S.G.S., the problem is with different projects using different vendors.

XIII. Other Issues

Ann VanSlembrouck, SEMCOG, stated that according to ESRI it is no longer necessary to use parameters when reprojecting from Michigan State Plane NAD 27 to Michigan GeoRef NAD 83 as they have been built into the program.

Gary Bilow, MDNR, stated that they are interested in GPS imagery and laptop with one-stop application. They can link GPS and a camera, but want to link GPS, camera, and computer. They want one unit to capture an image while on site with digital camera. Sony makes a video camera on top of a screen but may not work in rough environments

John Clark, MDEQ, suggested Gary check with the Forestry Division.

Jeroen Wagendorp, Allegan County, commented that Allegan County bought a camera for their appraisers that has a built-in CPU platform and that may have a GPS extension, intended to be used in the field. Will check out and advise Gary.

XIV. Next Meeting Date

February 1, 2001, 10 a.m. until 12 p.m., George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910